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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/605,363	09/25/2003	Charles B. Kendall	GEMS 0221 PA	2362
27256	7590	10/29/2004	EXAMINER	
ARTZ & ARTZ, P.C. 28333 TELEGRAPH RD. SUITE 250 SOUTHFIELD, MI 48034			SONG, HOON K	
			ART UNIT	PAPER NUMBER
			2882	

DATE MAILED: 10/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/605,363	<b>Applicant(s)</b> KENDALL, CHARLES B.	
	<b>Examiner</b> Hoon Song	<b>Art Unit</b> 2882	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f):  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:  
         1. ☐ Certified copies of the priority documents have been received.  
         2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
         3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "at least one energy-absorbing device fluidically coupled to said rotating target" as described in claim 3 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Specification***

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: "at least one energy-absorbing device fluidically coupled to said rotating target" as required by claim 3 should be described.

***Claim Rejections - 35 USC § 112***

Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "fluidically" in independent claims 1, 3 and 20 is a relative term which renders the claim indefinite. The term "fluidically" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. According to Merriam Webster's Dictionary, "fluid" is defined as a substance (as a liquid or gas) tending to flow or conform to the outline of its container. Thus, a solid-state substance such as a foam, a closed cell foam, a polyolefin foam, a olefin foam or a polymer does not have fluidic characteristic.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-10 and 13-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Blake (US 5159618).

Regarding claim 1, Christean teaches an energy-absorbing device for an imaging tube having a housing, said device comprising an energy-absorbing body (27) coupled to said housing (10) and adapted to absorb kinetic energy (vibration) generated within the imaging tube (column 4 line 9-19).

Regarding claim 2, Christean teaches said energy-absorbing body (27) is directly coupled to said housing (10).

Regarding claim 3, Christean teaches an imaging tube comprising;  
a housing (10);  
a rotating target (12) coupled within said housing (10) and generating at least one energy wave (vibration); and  
at least one energy-absorbing device (27) coupled to said housing (10), said at least one energy-absorbing device adapted to absorb energy within said at least one energy wave (column 4 line 9-19).

Regarding claim 4, Christean teaches a frame (11) coupled between said rotating target (12) and said housing (10) and containing at least a portion of said at least one energy wave (x-ray), said at least one energy-absorbing device absorbing energy.

Regarding claim 5, Christean teaches a cooling material containing at least a portion of said at least one energy wave, said at least one energy-absorbing device absorbing energy within said portion (figure 2).

Regarding claim 6, Christean teaches said at least one energy-absorbing device (27) is within said housing (10).

Regarding claim 7, Christean teaches said at least one energy-absorbing device (27) is coupled between said rotating target (12) and said housing (10).

Regarding claim 8, Christean teaches said at least one energy-absorbing device (27) is toroidal in shape.

Regarding claim 9, Christean teaches said at least one energy-absorbing device (27) is directly coupled to an inner surface of said housing (10).

Regarding claim 10, Christean teaches said at least one energy-absorbing device is formed of a material selected from at least one of a foam, a closed cell foam, a poly-olefin foam, a olefin foam, a polymer, and a polyolefin plastic (column 4 line 18-19).

Regarding claim 13, Christean teaches said at least one energy-absorbing device is coupled to said housing using at least one technique selected from bonding, adhering, fastening, brazing, welding, and spot welding (figure 2).

Regarding claim 14, Christean teaches at least one energy-absorbing device coupler is integrally formed as part of the housing (figure 2)

Regarding claim 15, Christean teaches said at least one energy-absorbing device (27) coupler is a coupler selected from at least one of a bracket, a fastener, and a cover (figure 2).

Regarding claim 16, Christean teaches said at least one device coupler is integrally formed as energy-absorbing part of the housing (figure 2).

Regarding claim 17, Christean teaches said at least one energy-absorbing device comprises an outer skin (figure 2).

Regarding claim 18, Christean teaches said at least one energy-absorbing device stabilizes and reduces pressure exertions on said housing (column 4 line 9-19).  
teaches said at least one energy-absorbing  
19 device comprises an X-ray opening.

Regarding claim 20, Christean teaches an imaging system having an imaging tube comprising;

a housing (10);

a rotating target (12) coupled within said housing (10) and generating at least one energy wave (x-ray); and

at least one energy-absorbing device (27) coupled to said housing (10) and said rotating target (12) and absorbing energy within said at least one energy wave (column 4 line 9-19).

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.



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Claims 3-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Artig et al. (US 6490340B1).

Regarding claim 3, Artig teaches an imaging tube comprising;

a housing (35);

a rotating target (16) coupled within said housing (35) and generating at least one energy wave (heat); and

at least one energy-absorbing device (34) coupled to said housing (35), said at least one energy-absorbing device (34) adapted to absorb energy within said at least one energy wave.

Regarding claim 11, Artig teaches said at least one energy-absorbing device (34) is oriented to receive said at least one energy wave generated from the separation of material fragments from said rotating target (figure 2).

Regarding claim 12, Artig teaches said at least one energy-absorbing device (34) is oriented to receive energy waves emitted within an emission range that is approximately a  $\pm 30^\circ$  span from a perpendicular axis, which extends perpendicular to a center axis of rotation of said rotating anode (figure 2).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoon Song whose telephone number is (571) 272-2494.

The examiner can normally be reached on 8:30 AM - 5 PM, Monday - Friday.




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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Glick can be reached on (571) 272 - 2490. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HKS

10/26/04  
HKS

  
DAVID V. BRUCE  
PRIMARY EXAMINER